

Notice of Allowability

Application No.

10/626,321

Examiner

Martin Lerner

Applicant(s)

BEHBOODIAN ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☐ This communication is responsive to ____.
2. ☒ The allowed claim(s) is/are 1 to 12.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: ____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date ____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date ____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date ____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date ____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other ____

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to Applicants, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

The application has been amended as follows:

Substitute the Abstract, as follows:

ABSTRACT OF THE DISCLOSURE

The invention provides a method and system for dynamically estimating background noise. The system includes a portable communication device, a vocoder, and a voice activated detector. Based on information received by the portable communication device, the vocoder determines parameters related to incoming information including a voicing mode indicative of the periodicity of incoming information. The voice activated detector then compares the voicing mode to a threshold to determine whether a background noise estimate should be updated. The method includes the steps of: receiving a periodicity indicator and a current comfort noise level for an incoming voice frame; comparing the periodicity indicator with a predetermined threshold if the current comfort noise level is equal to a previous comfort noise level; and maintaining a background noise estimate if the periodicity indicator

exceeds the predetermined threshold and revising a background noise estimate if the periodicity indicator does not exceed the predetermined threshold.

The Examiner's Amendment deletes the word "comprising" on Line 2 of the Abstract, thereby correcting a minor grammatical error.

EXAMINER'S STATEMENT OF REASONS FOR ALLOWANCE

2. The following is an examiner's statement of reasons for allowance:

Regarding independent claims 1 and 5, the prior art of record does not disclose or reasonably suggest comparing a periodicity indicator with a predetermined threshold if a current comfort noise level is equal to a previous comfort noise level. It is known in the prior art to generate comfort noise, and it is known to update a background noise level under conditions including relative silence. However, the prior art of record does not disclose or reasonably suggest comparing a current comfort noise level to a previous comfort noise level, and if they are equal, comparing a periodicity level to a threshold so as to determine whether a background noise estimate should be maintained or updated.

Regarding independent claim 9, the prior art of record does not disclose or reasonably suggest maintaining an outbound channel open unless a voicing mode exceeds a predetermined threshold. Applicants' Specification discloses estimating background noise of a half-duplex speakerphone, where only one party can occupy a communication channel at any one time. ¶[0003] and ¶[0007] It is known in the prior

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art that cellular telephones can include a vocoder including a voicing mode that indicates periodicity and a voice activity detector for determining a background noise estimate. However, the prior art of record does not disclose or reasonably suggest maintaining an outbound channel open unless the voicing mode exceeds a predetermined threshold.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

CONCLUSION

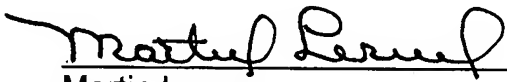
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Martin Lerner whose telephone number is (571) 272-7608. The examiner can normally be reached on 8:30 AM to 6:00 PM Monday to Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David R. Hudspeth can be reached on (571) 272-7843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ML
5/3/07



Martin Lerner
Examiner
Group Art Unit 2626